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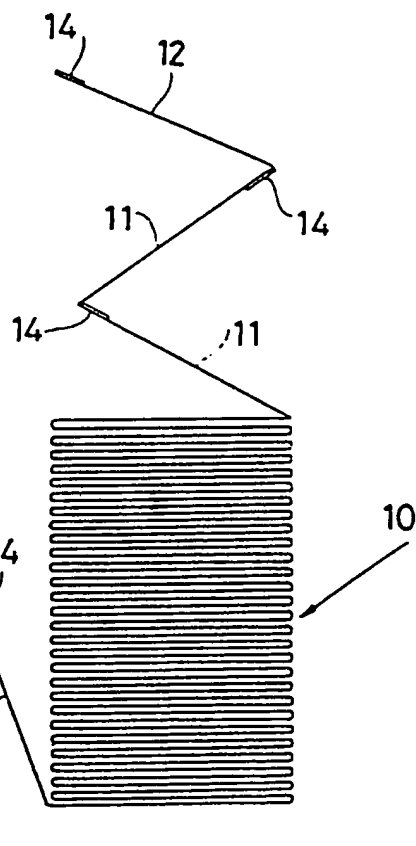
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(54) Sheet material package.

(57) Sheet material package in the form of a continuous accordion-wise folded form in which, to join together the last sheet of a package with the first sheet of a next package, said last sheet and first sheet exhibit along a free edge a zone coated with a film-forming adhesive which may be softened and fluidized by heat or other form of energy.



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"Sheet material package"

The present invention relates to a package for sheet material, in particular a package of forms or sheets joined in the form of a continuous strip folded accordion-wise (fanfold).

It is known that in modern data processing lines (data processing centres, etc.) the printer, e.g. a fast printer of the so-called laser type, is fed with a package of sheets or forms of the type contemplated in the present invention. These lines increasingly have a requirement for prior automatic splicing of the last sheet of the package being fed to the printer with the first sheet of the immediately following package to prevent delays which can have a serious effect as down time on productivity of the printer and hence of the entire line.

Splicing equipment is known in which said last and first sheets are brought together with the edges to be joined carefully positioned, after which the equipment automatically extends a section of adhesive tape spanning the junction line while also pressing the zones engaged by the adhesive tape.

For this purpose there are provided and described in a previous patent of the same applicant packages of material in sheets which are characterized in that a group of sheets on the bottom of a package of sheets, including therefore the last sheet, is arranged in the box sideways in relation to the plane of splicing and beside the actual package of sheets.

Upon opening the box said group of sheets falls back to the side and arranges itself parallel to the package of main sheets, thus allowing access to the said last sheet for the splicing operation.

The same applicant has recently conceived and perfected a splicing method and apparatus in which the aforesaid adhesive tape is omitted and splicing is performed by extending a coat or continuous film of film-forming adhesive spanning the junction line between the adjacent edges of the two sheets to be joined together.

The object of the present invention is to provide a pack or package of material in sheets which would facilitate application of the abovedescribed method.

Said object is achieved with a package of material in sheets joined together in a continuous strip and folded accordion-wise in which at least the last sheet and preferably a group of sheets are arranged sideways in relation to the main body of the package and free to fall on a plane parallel to the main lie plane of the sheets in the package characterized in that at least the last sheet and at least

the first sheet of the package exhibit along the free edge a zone coated with a film-forming adhesive which may be softened and fluidized under the effect of heat or other form of energy.

In the preferred embodiment of the package in accordance with the invention a number of sheets on the order of approximately ten starting both from the first sheet and from the last exhibit an edge zone coated with adhesive having the abovespecified characteristics.

The peculiar aspects and advantages of the present invention will appear more clearly from the description given below with reference to the annexed drawings wherein is shown schematically the package of the present invention with the lead and tail sheets unfolded from the package.

As can be seen in the drawing the package comprises a pack 10 of sheets 11 joined together in a continuous strip and folded accordion-wise.

In the package is distinguished a first sheet 12 and a last sheet 13, said indications referring to the direction of unfolding of the continuous strip and hence of withdrawal of the sheets from the package.

In accordance with the invention on the edges of the first sheet 12 and those of the immediately following sheets as well as of the last sheet 13 and of those immediately preceding is provided a zone coated with adhesive 14.

Through utilization of these two zones and appropriate softening of the adhesive the apparatus extends a coat or continuous film across the junction line.

The adhesive may be of the type which softens when heated and in this case will be the same on all the zones 14.

Alternatively it may be activated by an energy source as in the case of adhesives activate photochemically. In the same manner a single encapsulated adhesive may be provided for which upon joining the microcapsules are broken by appropriate means. Or in the case of two-ingredient adhesives (well known per se) the zone 14 of the first sheet 12 will be precoated with adhesive with the first component and the zone 14 of the last sheet 13 will be precoated with the other component. As already mentioned, for splicing purposes it is sufficient to provide the zones 14 precoated with adhesive on the first sheet 12 and the last sheet 13 respectively.

For reasons of safety and to avoid problems of handling or accidental damage it is preferable that a certain number of sheets following the first sheet and preceding the last sheet be also precoated with adhesive as illustrated in the drawing.

Claims

1. Package or pack of material in steets joined in a continuous strip and folded accordion-wise in which at least the last sheet and preferably a group of bottom sheets is arranged sideways in relation to the main body of the package and may fall freely on a plane parallel to the main lie plane of the sheets in the package characterized in that at least the last sheet (13) and at least the first sheet - (12) of the package exhibit along the free edge a zone (14) coated with a film-forming adhesive which can be softened or fluidized. 5 10
2. Package in accordance with claim 1 characterized in that several sheets (11) following the first sheet (12) and several sheets (11) preceding the last sheet (13) exhibit said zone (14) coated with adhesive. 15
3. Package in accordance with claim 2 characterized in that said several sheets (11) are approximately ten in number. 20
4. Package in accordance with the above claims characterized in that said adhesive can be softened with heat.
5. Package in accordance with claims 1-3 characterized in that said adhesive is microencapsulated. 25
6. Package in accordance with claims 1-3 characterized in that said adhesive has two components of which one is applied to said zone of said first sheet and following sheets and the other is applied to said zone of said last sheet and preceding sheets. 30

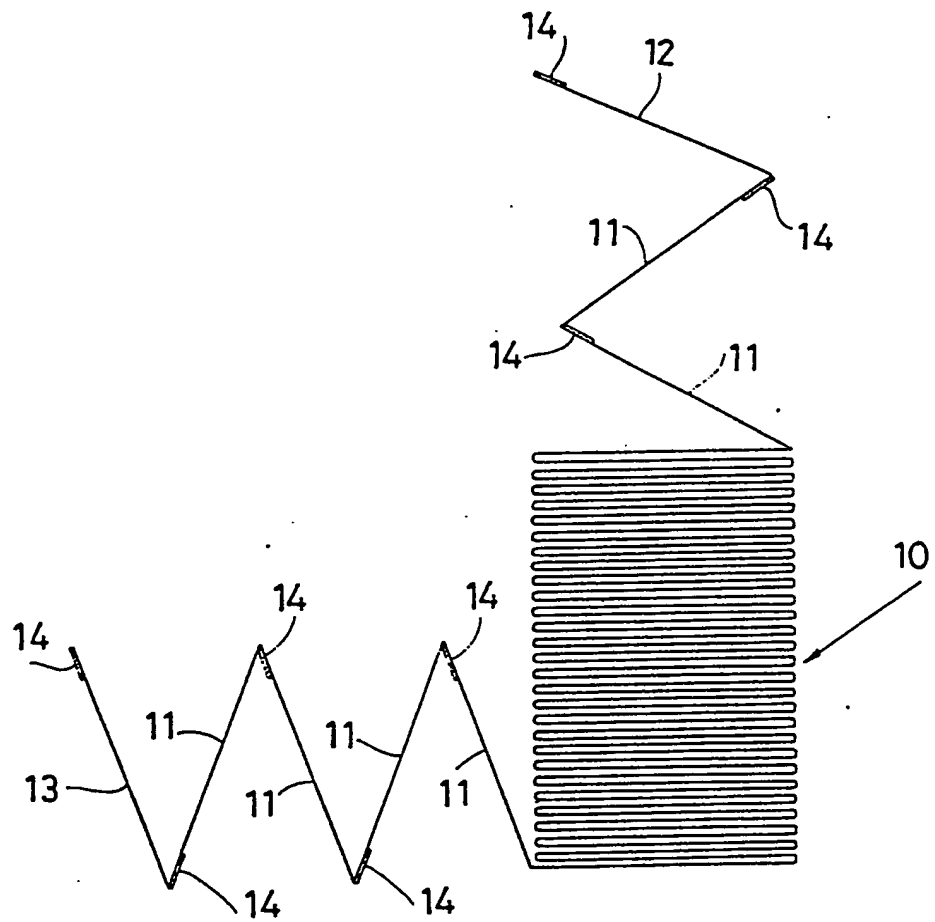
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Y	US-A-4 458 814 (L. MESCHI) * Column 1, lines 19-44; figures 2,3 *	1-6	B 65 H 21/00 B 41 J 11/58
Y	GB-A-1 129 902 (J. DICKINSON & CO. LTD.) * Page 1, lines 33-47,61-86; figure 1; page 2, lines 102-105; claim 5 *	1-6	
A	FR-A-2 540 474 (HERVE & FILS S.A.) * Page 4, lines 8-18; figures 2,3 *	1-4	
A	PATENTS ABSTRACTS OF JAPAN, vol. 6, no. 256 (M-179)[1134], 15th December 1982; & JP - A - 57 151 554 (HITACHI SEISAKUSHO K.K.) 18-09-1982	1	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	FR-E- 79 734 (P. DRESCHER) * Page 2, column 2, lines 37-54 *	1	B 65 H B 41 L B 41 J B 42 D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 30-07-1986	Examiner WEBER P.L.P.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			